

STIC Search Report

Biotech-Chem Library

STIC Database Tracking Number: 134699

**TO: Ralph J Gitomer
Location: 3d65 / 3e71
Art Unit: 1651
Wednesday, October 13, 2004**

Case Serial Number: 10/696334

**From: Noble Jarrell
Location: Biotech-Chem Library
Rem 1B71
Phone: 272-2556**

Noble.jarrell@uspto.gov

Search Notes

=> d his

(FILE 'HOME' ENTERED AT 13:00:33 ON 13 OCT 2004)

FILE 'HCAPLUS' ENTERED AT 13:00:39 ON 13 OCT 2004

L1 1 US20040087023/PN

FILE 'REGISTRY' ENTERED AT 13:00:59 ON 13 OCT 2004

FILE 'HCAPLUS' ENTERED AT 13:01:00 ON 13 OCT 2004

L2 TRA L1 1- RN : 42 TERMS

FILE 'REGISTRY' ENTERED AT 13:01:01 ON 13 OCT 2004

L3 42 SEA L2

FILE 'WPIX' ENTERED AT 13:01:04 ON 13 OCT 2004

L4 1 US20040087023/PN

=> b hcap

FILE 'HCAPLUS' ENTERED AT 13:01:40 ON 13 OCT 2004

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FILE COVERS 1907 - 13 Oct 2004 VOL 141 ISS 16

FILE LAST UPDATED: 12 Oct 2004 (20041012/ED)

This file contains CAS Registry Numbers for easy and accurate substance identification.

=> d all 11

L1 ANSWER 1 OF 1 HCAPLUS COPYRIGHT 2004 ACS on STN
 AN 1998:176040 HCAPLUS
 DN 128:228255
 ED Entered STN: 25 Mar 1998
 TI Assessment of intracellular cysteine and glutathione concentrations
 IN Crawford, J. Fred
 PA Research Development Foundation, USA
 SO PCT Int. Appl., 36 pp.
 CODEN: PIXXD2
 DT Patent
 LA English
 IC ICM C12Q001-02
 ICS C12N005-00
 CC 9-11 (Biochemical Methods)
 FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9810092	A1	19980312	WO 1997-US15451	19970903
W: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GE, HU, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, TJ, TM, TR, TT, UA, UG, UZ, VN, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG				
TW 517089	B	20030111	TW 1997-86104556	19970409
CA 2264698	AA	19980312	CA 1997-2264698	19970903
AU 9742464	A1	19980326	AU 1997-42464	19970903
AU 718816	B2	20000420		
EP 931163	A1	19990728	EP 1997-940761	19970903
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, NL, SE, PT, IE, FI				

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NZ 334327	A	20000623	NZ 1997-334327	19970903
CN 1268977	A	20001004	CN 1997-197585	19970903
JP 2001500011	T2	20010109	JP 1998-512821	19970903
IL 128650	A1	20021201	IL 1997-128650	19970903
RU 2216020	C2	20031110	RU 1999-106547	19970903
US 2002068270	A1	20020606	US 2001-17625	20011213
US 6709835	B2	20040323		
US 2004087023	A1	20040506	US 2003-696334	20031029 <--
PRAI US 1996-25373P	P	19960903		
US 1997-922279	B3	19970903		
WO 1997-US15451	W	19970903		
US 2001-17625	A3	20011213		

CLASS

PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
WO 9810092	ICM	C12Q001-02
	ICS	C12N005-00
US 2002068270	ECLA	C12N005/00M; C12Q001/28; G01N033/50D
US 2004087023	ECLA	C12N005/00M; C12Q001/28; G01N033/50D
AB		A medium and method for culturing lymphocytes are provided for determining intracellular concentration of glutathione or cysteine in human lymphocytes to provide biochem. anal. of an individual's capability of dealing with oxidative stress. The medium is a buffered serum-free solution having a pH of from about 6.8 to 7.6 and containing a carbohydrate which is glucose or a compound capable of producing glucose in lymphocytes, pantothenic acid, choline or a substance capable of producing choline in lymphocytes, inorg. ions including chloride, phosphate, calcium, magnesium, potassium, sodium and iron, L-Buthionine-[S.R.]-Sulfoximine, deionized water and a mitogen to stimulate lymphocytes. When determining cysteine concentration, the medium addnl. contains N-Acetyl-L Cysteine and Cumene Hydroperoxide. The method is carried out by inoculating the culture medium with lymphocytes from an individual, incubating the lymphocytes in the medium and comparing the response of the lymphocytes with an average response of lymphocytes from a control group of individuals.
ST		intracellular cysteine glutathione concn
IT		Animal tissue culture
		Mitogens
		Oxidative stress, biological (assessment of intracellular cysteine and glutathione concns.)
IT		Amino acids, biological studies
		Antioxidants
		Carbohydrates, biological studies
		Vitamins
		RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses) (assessment of intracellular cysteine and glutathione concns.)
IT		70-18-8, Glutathione, analysis 3374-22-9, Cysteine RL: ANT (Analyte); ANST (Analytical study) (assessment of intracellular cysteine and glutathione concns.)
IT		50-99-7, D-Glucose, biological studies 56-40-6, Glycine, biological studies 56-45-1, L-Serine, biological studies 58-05-9, Folinic acid 58-85-5, Biotin 59-30-3, Folic acid, biological studies 59-43-8, Thiamin, biological studies 59-51-8, Methionine 59-67-6, Nicotinic acid, biological studies 60-18-4, Tyrosine, biological studies 62-49-7, Choline 68-19-9, Vitamin b12 70-54-2, Lysine 72-18-4, Valine, biological studies 72-19-5, Threonine, biological studies 73-22-3, Tryptophan, biological studies 73-24-5, Adenine, biological studies 79-83-4, Pantothenic acid, 80-15-9, Cumene Hydroperoxide, 83-88-5, Riboflavin, biological studies 87-89-8, myo-Inositol 98-92-0, Nicotinamide 127-17-3, biological studies 150-30-1, Phenylalanine 328-39-2, Leucine 443-79-8, Isoleucine 616-91-1, N-Acetyl-L-Cysteine 4998-57-6, Histidine 6899-04-3, Glutamine 7200-25-1, Arginine 7439-89-6, Iron, biological studies 7439-95-4, Magnesium, biological studies 7440-09-7, Potassium, biological studies 7440-23-5, Sodium, biological studies 7440-70-2, Calcium, biological studies 7732-18-5, Water, biological studies 8059-24-3, Vitamin b6 14265-44-2, Phosphate, biological studies 16887-00-6, Chloride, biological studies 83730-53-4, L-Buthionine-Sulfoximine RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses) (assessment of intracellular cysteine and glutathione concns.)

RE.CNT 5 THERE ARE 5 CITED REFERENCES AVAILABLE FOR THIS RECORD

RE

- (1) Bounous; US 5290571 A 1994 HCAPLUS
- (2) Darfler; US 4927762 A 1990 HCAPLUS
- (3) Griffith; US 5171885 A 1992 HCAPLUS

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(4) Ponting; US 5405772 A 1995 HCAPLUS
 (5) Torishima; US 5326699 A 1994

=> b wpiix
 FILE 'WPIX' ENTERED AT 13:01:47 ON 13 OCT 2004
 COPYRIGHT (C) 2004 THE THOMSON CORPORATION

FILE LAST UPDATED: 11 OCT 2004 <20041011/UP>
 MOST RECENT DERWENT UPDATE: 200465 <200465/DW>
 DERWENT WORLD PATENTS INDEX SUBSCRIBER FILE, COVERS 1963 TO DATE

>>> FOR A COPY OF THE DERWENT WORLD PATENTS INDEX STN USER GUIDE,
 PLEASE VISIT:
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 HIT STRUCTURES WITHIN THE BIBLIOGRAPHIC DOCUMENT <<<

=> d all 14

L4 ANSWER 1 OF 1 WPIX COPYRIGHT 2004 THE THOMSON CORP on STN
 AN 1998-239725 [21] WPIX
 DNC C1998-074761
 TI New culture medium - includes, e.g. L-buthionine-(S,R)-sulphoximine, is
 useful in assessment of intracellular cysteine and glutathione
 concentrations.
 DC B04 D16
 IN CRAWFORD, J F
 PA (RERE-N) RES DEV FOUND; (CRAW-I) CRAWFORD J F
 CYC 79
 PI WO 9810092 A1 19980312 (199821)* EN 36 C12Q001-02
 RW: AT BE CH DE DK EA ES FI FR GB GH GR IE IT KE LS LU MC MW NL OA PT
 SD SE SZ UG ZW
 W: AL AM AT AU AZ BA BB BG BR BY CA CH CN CU CZ DE DK EE ES FI GB GE
 HU IL IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MD MG MK MN MW MX
 NO NZ PL PT RO RU SD SE SG SI SK TJ TM TR TT UA UG UZ VN
 AU 9742464 A 19980326 (199832) C12Q001-02
 ZA 9707892 A 19990428 (199922) 35 A61K000-00
 EP 931163 A1 19990728 (199934) EN C12Q001-02
 R: AT BE CH DE DK ES FI FR GB GR IE IT LI NL PT SE
 AU 718816 B 20000420 (200029) C12Q001-02
 NZ 334327 A 20000623 (200038) C12Q001-02
 CN 1268977 A 20001004 (200067) C12Q001-02
 JP 2001500011 W 20010109 (200107) 33 C12Q001-02
 KR 2000068398 A 20001125 (200130) C12Q001-02
 US 2002068270 A1 20020606 (200241) C12Q001-00
 IL 128650 A 20021201 (200282) C12N005-00
 TW 517089 A 20030111 (200356) C12Q001-02
 RU 2216020 C2 20031110 (200404) G01N033-48
 US 6709835 B2 20040323 (200421) C12Q001-26
 US 2004087023 A1 20040506 (200430) C12N005-02 <--
 ADT WO 9810092 A1 WO 1997-US15451 19970903; AU 9742464 A AU 1997-42464
 19970903; ZA 9707892 A ZA 1997-7892 19970903; EP 931163 A1 EP 1997-940761
 19970903, WO 1997-US15451 19970903; AU 718816 B AU 1997-42464 19970903; NZ
 334327 A NZ 1997-334327 19970903, WO 1997-US15451 19970903; CN 1268977 A
 CN 1997-197585 19970903; JP 2001500011 W WO 1997-US15451 19970903, JP
 1998-512821 19970903; KR 2000068398 A WO 1997-US15451 19970903, KR
 1999-701715 19990302; US 2002068270 A1 Provisional US 1996-25373P
 19960903, Div ex US 1997-922279 19970903, US 2001-17625 20011213; IL
 128650 A IL 1997-128650 19970903; TW 517089 A TW 1997-104556 19970409; RU
 2216020 C2 WO 1997-US15451 19970903, RU 1999-106547 19970903; US 6709835
 B2 Provisional US 1996-25373P 19960903, Div ex US 1997-922279 19970903, US
 2001-17625 20011213; US 2004087023 A1 Provisional US 1996-25373P 19960903,

Div ex US 1997-922279 19970903, Div ex US 2001-17625 20011213, US 2003-696334 20031029

FDT AU 9742464 A Based on WO 9810092; EP 931163 A1 Based on WO 9810092; AU 718816 B Previous Publ. AU 9742464, Based on WO 9810092; NZ 334327 A Based on WO 9810092; JP 2001500011 W Based on WO 9810092; KR 2000068398 A Based on WO 9810092; IL 128650 A Based on WO 9810092; RU 2216020 C2 Based on WO 9810092

PRAI US 1996-25373P 19960903; US 1997-922279 19970903;
US 2001-17625 20011213; US 2003-696334 20031029

IC ICM A61K000-00; C12N005-00; C12N005-02; C12Q001-00; C12Q001-02;
C12Q001-26; G01N033-48

ICS C12N005-06

AB WO 9810092 A UPAB: 19980528

A cell culture medium, which is useful for (i) determining levels of intracellular function of glutathione in lymphocytes and (ii) performing biochemical analysis of the antioxidant function of the lymphocytes, comprising a buffered, serum-free medium (pH 6.8-7.6) comprising: (a) a carbohydrate (which is glucose or a compound capable of producing this in the lymphocytes); (b) a biologically usable form of pantothenic acid, choline or a biologically usable form of a substance capable of producing choline in the lymphocytes; (c) inorganic ions comprising chloride, phosphate, calcium, magnesium, potassium, sodium and iron in a biologically utilisable form; (d) L-buthionine-(S,R)-sulphoximine (I); (e) deionised water, and (f) a mitogen in an amount effective to stimulate the lymphocytes. Also claimed is a cell culture medium, which is useful for (i) determining levels of intracellular function of cysteine and (ii) performing biochemical analysis of the antioxidant function of human lymphocytes, having identical composition to the medium above, but instead of (I) containing cumene hydroperoxide.

The media comprises a 5-500 μ M concentration of (I) or a 50-500 μ M concentration of (II). The media may be supplemented with amino acids and/or vitamins. The amino acids are selected from L-arginine, L-cysteine, L-glutamine, glycine, L-histidine, L-isoleucine, L-leucine, L-lysine, L-methionine, L-phenylalanine, L-serine, L-threonine, L-tryptophan, L-tyrosine and L-valine. The vitamins are selected from biotin, folic acid, nicotinamide, nicotinic acid, riboflavin, thiamine, vitamin B6 and vitamin B12. Processes in which the media are used typically comprise: (a) inoculating the medium with lymphocytes from an individual; (b) incubating the inoculated medium, and (c) comparing the response of the lymphocytes with an average response of lymphocytes from a control group of individuals.

USE - The media may be used in processes for measuring levels of intracellular function of cysteine and glutathione, so as to provide a measurement of an individual's ability to prevent degenerative disease and deal with oxidative stress, and to allow therapeutic measures to be taken to improve an individual's antioxidant profile. It is widely accepted that certain conditions (e.g. ageing, arthritis, cancer, atherosclerosis, myocardial infarction, stroke, viral infection, pulmonary conditions, bowel diseases and neurodegenerative disease) can develop due to the presence of reactive oxygen molecules.

Dwg.0/0

FS CPI

FA AB; DCN

MC CPI: B04-F04; B05-A01A; B05-A01B; B05-A03A; B05-C07; B07-A02B; B10-A08;
B10-A22; B10-B02D; B10-C04E; B12-K04; D05-H01; D05-H09

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=> b reg

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STRUCTURE FILE UPDATES: 12 OCT 2004 HIGHEST RN 761381-83-3
DICTIONARY FILE UPDATES: 12 OCT 2004 HIGHEST RN 761381-83-3

TSCA INFORMATION NOW CURRENT THROUGH MAY 21, 2004

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Experimental and calculated property data are now available. For more
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<http://www.cas.org/ONLINE/DBSS/registryss.html>

=> d ide-15

L5 ANSWER 1 OF 1 REGISTRY COPYRIGHT 2004 ACS on STN

RN 50-99-7 REGISTRY

CN D-Glucose (8CI, 9CI) (CA INDEX NAME)

OTHER NAMES:

CN (+)-Glucose
CN Anhydrous dextrose
CN Cartose
CN Cerelese
CN Cerelese 2001
CN Clearsweet 95
CN Clintose L
CN Corn sugar
CN CPC hydrate
CN D(+)-Glucose
CN Dextropur
CN Dextrose
CN Dextrosol
CN Glucodin
CN Glucolin
CN Glucose
CN Glucosteril
CN Goldsugar
CN Grape sugar
CN Maxim Energy Gel
CN Meritose
CN Meritose 200
CN Roferose ST
CN Staleydex 111
CN Staleydex 130
CN Staleydex 333
CN Staleydex 95M
CN Sugar, grape
CN Tabfine 097(HS)
CN Vadex
FS STEREOSEARCH
DR 8012-24-6, 8030-23-7, 162222-91-5, 165659-51-8, 50933-92-1, 80206-31-1
MF C6 H12 O6
CI COM
LC STN Files:

ADISNEWS, AGRICOLA, ANABSTR, AQUIRE, BEILSTEIN*, BIOBUSINESS,
BIOSIS, BIOTECHNO, CA, CABA, CANCERLIT, CAOLD, CAPLUS, CASREACT, CBNE,
CEN, CHEMCATS, CHEMINFORMRX, CHEMLIST, CHEMSAFE, CIN, CSCHEM, CSNB,
DDFU, DETHERM*, DIOGENES, DIPPR*, DRUGU, EMBASE, GMELIN*, HSDB*, IFICDB,
IFIPAT, IFIUDB, IMSCOSEARCH, IPA, MEDLINE, MRCK*, MSDS-OHS, NAPRALERT,
NIOSTIC, PDLCOM*, PIRA, PROMT, PS, RTECS*, SPECINFO, TOXCENTER, TULSA,
ULIDAT, USAN, USPAT2, USPATFULL, VETU, VTB

(*File contains numerically searchable property data)

Other Sources: DSL**, EINECS**, TSCA**

(**Enter CHEMLIST File for up-to-date regulatory information)

DT.CA Caplus document type: Book; Conference; Dissertation; Journal; Patent;
Preprint; Report

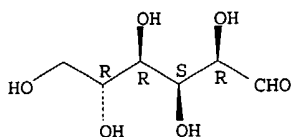
RL.P Roles from patents: ANST (Analytical study); BIOL (Biological study); CMBI (Combinatorial study); FORM (Formation, nonpreparative); MSC (Miscellaneous); OCCU (Occurrence); PREP (Preparation); PROC (Process); PRP (Properties); RACT (Reactant or reagent); USES (Uses); NORL (No role in record)

RLD.P Roles for non-specific derivatives from patents: ANST (Analytical study); BIOL (Biological study); FORM (Formation, nonpreparative); OCCU (Occurrence); PREP (Preparation); PROC (Process); PRP (Properties); RACT (Reactant or reagent); USES (Uses)

RL.NP Roles from non-patents: ANST (Analytical study); BIOL (Biological study); CMBI (Combinatorial study); FORM (Formation, nonpreparative); MSC (Miscellaneous); OCCU (Occurrence); PREP (Preparation); PROC (Process); PRP (Properties); RACT (Reactant or reagent); USES (Uses); NORL (No role in record)

RLD.NP Roles for non-specific derivatives from non-patents: ANST (Analytical study); BIOL (Biological study); FORM (Formation, nonpreparative); MSC (Miscellaneous); OCCU (Occurrence); PREP (Preparation); PROC (Process); PRP (Properties); RACT (Reactant or reagent); USES (Uses)

Absolute stereochemistry.



PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

170842 REFERENCES IN FILE CA (1907 TO DATE)
 2241 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA
 171075 REFERENCES IN FILE CAPLUS (1907 TO DATE)
 14 REFERENCES IN FILE CAOLD (PRIOR TO 1967)

=> d ide 18

L8 ANSWER 1 OF 1 REGISTRY COPYRIGHT 2004 ACS on STN
 RN 79-83-4 REGISTRY
 CN .beta.-Alanine, N-[(2R)-2,4-dihydroxy-3,3-dimethyl-1-oxobutyl]- (9CI) (CA INDEX NAME)
 OTHER CA INDEX NAMES:
 CN .beta.-Alanine, N-(2,4-dihydroxy-3,3-dimethyl-1-oxobutyl)-, (R)-
 CN Pantothenic acid, D- (8CI)
 OTHER NAMES:
 CN (+)-Pantothenic acid
 CN (D)-(+)-Pantothenic acid
 CN Chick antidermatitis factor
 CN D(+)-N-(2,4-Dihydroxy-3,3-dimethylbutyryl)-.beta.-alanine
 CN D-Pantothenic acid
 CN Pantothenic acid
 CN Vitamin B3
 CN Vitamin B5
 FS STEREOSEARCH
 DR 3563-85-7
 MF C9 H17 N O5
 CI COM
 LC STN Files: ADISNEWS, AGRICOLA, ANABSTR, BEILSTEIN*, BIOBUSINESS, BIOSIS, BIOTECHNO, CA, CABA, CANCERLIT, CAOLD, CAPLUS, CASREACT, CBNB, CHEMCATS, CHEMINFORMRX, CHEMLIST, CIN, CSCHM, DDFU, DIOGENES, DRUGU, EMBASE, HODOC*, HSDB*, IFICDB, IFIUDB, IPA, MEDLINE, MRCK*, NAPRALERT, NIOSHTIC, PIRA, PROMT, PS, RTECS*, TOXCENTER, USAN, USPAT2, USPATFULL, VETU
 (*File contains numerically searchable property data)
 Other Sources: EINECS**
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 DT.CA Caplus document type: Book; Conference; Dissertation; Journal; Patent; Report
 RL.P Roles from patents: ANST (Analytical study); BIOL (Biological study); FORM (Formation, nonpreparative); OCCU (Occurrence); PREP (Preparation); PROC (Process); PRP (Properties); RACT (Reactant or reagent); USES (Uses); NORL (No role in record)
 RLD.P Roles for non-specific derivatives from patents: BIOL (Biological study); PREP (Preparation); PROC (Process); PRP (Properties); RACT

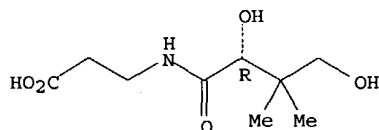
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(Reactant or reagent); USES (Uses)

RL.NP Roles from non-patents: ANST (Analytical study); BIOL (Biological study); FORM (Formation, nonpreparative); MSC (Miscellaneous); OCCU (Occurrence); PREP (Preparation); PROC (Process); PRP (Properties); RACT (Reactant or reagent); USES (Uses); NORL (No role in record)

RLD.NP Roles for non-specific derivatives from non-patents: ANST (Analytical study); BIOL (Biological study); FORM (Formation, nonpreparative); PREP (Preparation); PROC (Process); PRP (Properties); USES (Uses)

Absolute stereochemistry. Rotation (+).



PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

5118 REFERENCES IN FILE CA (1907 TO DATE)
 131 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA
 5126 REFERENCES IN FILE CAPLUS (1907 TO DATE)
 8 REFERENCES IN FILE CAOLD (PRIOR TO 1967)

=> d ide 112

L12 ANSWER 1 OF 1 REGISTRY COPYRIGHT 2004 ACS on STN
 RN 62-49-7 REGISTRY
 CN Ethanaminium, 2-hydroxy-N,N,N-trimethyl- (9CI) (CA INDEX NAME)
 OTHER CA INDEX NAMES:
 CN Choline (8CI)
 OTHER NAMES:
 CN (2-Hydroxyethyl)trimethylammonium
 CN Bilineurine
 CN Choline cation
 CN Choline ion
 FS 3D CONCORD
 DR 139741-81-4
 MF C5 H14 N O
 CI COM
 LC STN Files: ADISNEWS, AGRICOLA, ANABSTR, BEILSTEIN*, BIOBUSINESS, BIOSIS, BIOTECHNO, CA, CABA, CANCERLIT, CAOLD, CAPLUS, CASREACT, CBNB, CEN, CHEMCATS, CHEMLIST, CIN, CSCHEM, CSNB, DDFU, DIOGENES, DRUGU, EMBASE, GMELIN*, IFICDB, IFIPAT, IFIUDB, IPA, MEDLINE, MRCK*, MSDS-OHS, NAPRALERT, NIOSHTIC, PIRA, PROMT, RTECS*, TOXCENTER, TULSA, USAN, USPAT2, USPATFULL, VETU
 (*File contains numerically searchable property data)
 Other Sources: DSL**, EINECS**, TSCA**
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DT.CA Caplus document type: Book; Conference; Dissertation; Journal; Patent; Report

RL.P Roles from patents: ANST (Analytical study); BIOL (Biological study); FORM (Formation, nonpreparative); MSC (Miscellaneous); OCCU (Occurrence); PREP (Preparation); PROC (Process); PRP (Properties); RACT (Reactant or reagent); USES (Uses); NORL (No role in record)

RLD.P Roles for non-specific derivatives from patents: ANST (Analytical study); BIOL (Biological study); OCCU (Occurrence); PREP (Preparation); PROC (Process); PRP (Properties); RACT (Reactant or reagent); USES (Uses)

RL.NP Roles from non-patents: ANST (Analytical study); BIOL (Biological study); FORM (Formation, nonpreparative); MSC (Miscellaneous); OCCU (Occurrence); PREP (Preparation); PROC (Process); PRP (Properties); RACT (Reactant or reagent); USES (Uses); NORL (No role in record)

RLD.NP Roles for non-specific derivatives from non-patents: ANST (Analytical study); BIOL (Biological study); FORM (Formation, nonpreparative); OCCU (Occurrence); PREP (Preparation); PROC (Process); PRP (Properties); RACT (Reactant or reagent); USES (Uses)

Me₃N-CH₂-CH₂-OH

11870 REFERENCES IN FILE CA (1907 TO DATE)
 436 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA
 11875 REFERENCES IN FILE CAPLUS (1907 TO DATE)
 3 REFERENCES IN FILE CAOLD (PRIOR TO 1967)

=> d ide 116 tot

L16 ANSWER 1 OF 7 REGISTRY COPYRIGHT 2004 ACS on STN
 RN 16887-00-6 REGISTRY
 CN Chloride (6CI, 7CI, 8CI, 9CI) (CA INDEX NAME)
 OTHER NAMES:
 CN Chloride (Cl-)
 CN Chloride anion
 CN Chloride ion
 CN Chloride ion (1-)
 CN Chloride(1-)
 CN Chlorine ion
 CN Chlorine ion(1-)
 CN Chlorine(1-)
 CN Chlorine, ion (Cl1-)
 CN Hydrochloric acid, ion(1-)
 CN Perchloride
 DR 405267-46-1
 MF Cl
 CI COM
 LC STN Files: ADISNEWS, AGRICOLA, ANABSTR, BIOBUSINESS, BIOSIS, BIOTECHNO,
 CA, CABA, CAOLD, CAPLUS, CASREACT, CEN, CHEMCATS, CHEMINFORMRX,
 CHEMLIST, CIN, CSCHM, CSNB, DETHERM*, EMBASE, IFICDB, IFIPAT, IFIUDB,
 NIOSHTIC, PDLCOM*, PIRA, PROMT, TOXCENTER, TULSA, ULIDAT, USPAT2,
 USPATFULL, VTB
 (*File contains numerically searchable property data)
 DT.CA Caplus document type: Book; Conference; Dissertation; Journal; Patent;
 Preprint; Report
 RL.P Roles from patents: ANST (Analytical study); BIOL (Biological study);
 FORM (Formation, nonpreparative); MSC (Miscellaneous); OCCU
 (Occurrence); PREP (Preparation); PROC (Process); PRP (Properties); RACT
 (Reactant or reagent); USES (Uses); NORL (No role in record)
 RLD.P Roles for non-specific derivatives from patents: ANST (Analytical
 study); BIOL (Biological study); OCCU (Occurrence); PREP (Preparation);
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 (Occurrence); PREP (Preparation); PROC (Process); PRP (Properties); RACT
 (Reactant or reagent); USES (Uses); NORL (No role in record)
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 (Miscellaneous); OCCU (Occurrence); PREP (Preparation); PROC (Process);
 PRP (Properties); RACT (Reactant or reagent); USES (Uses)

Cl-

60596 REFERENCES IN FILE CA (1907 TO DATE)
 289 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA
 60665 REFERENCES IN FILE CAPLUS (1907 TO DATE)
 3 REFERENCES IN FILE CAOLD (PRIOR TO 1967)

L16 ANSWER 2 OF 7 REGISTRY COPYRIGHT 2004 ACS on STN
 RN 14265-44-2 REGISTRY
 CN Phosphate (8CI, 9CI) (CA INDEX NAME)
 OTHER NAMES:
 CN Orthophosphate
 CN Orthophosphate (PO43-)
 CN Orthophosphate(3-)
 CN Phosphate (PO43-)
 CN Phosphate anion(3-)
 CN Phosphate ion (PO43-)
 CN Phosphate ion(3-)
 CN Phosphate trianion
 CN Phosphate(3-)
 CN Phosphoric acid, ion(3-)
 FS 3D CONCORD
 DR 264888-19-9

MF O4 P
 CI COM
 LC STN Files: ADISNEWS, AGRICOLA, ANABSTR, AQUIRE, BIOBUSINESS, BIOSIS, BIOTECHNO, CA, CAPLUS, CASREACT, CBNB, CEN, CHEMCATS, CHEMLIST, CIN, CSCHEM, CSNB, DDFU, DRUGU, EMBASE, GMELIN*, IFICDB, IFIPAT, IFIUDB, IPA, NIOSHTIC, PIRA, PROMT, TOXCENTER, TULSA, ULIDAT, USPAT2, USPATFULL, VETU, VTB
 (*File contains numerically searchable property data)
 Other Sources: NDSL**, TSCA**
 (**Enter CHEMLIST File for up-to-date regulatory information)

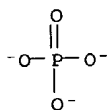
DT.CA Caplus document type: Book; Conference; Dissertation; Journal; Patent; Preprint; Report

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RLD.P Roles for non-specific derivatives from patents: ANST (Analytical study); BIOL (Biological study); FORM (Formation, nonpreparative); MSC (Miscellaneous); PREP (Preparation); PROC (Process); PRP (Properties); RACT (Reactant or reagent); USES (Uses)

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RLD.NP Roles for non-specific derivatives from non-patents: ANST (Analytical study); BIOL (Biological study); FORM (Formation, nonpreparative); OCCU (Occurrence); PREP (Preparation); PROC (Process); PRP (Properties); RACT (Reactant or reagent); USES (Uses)



36474 REFERENCES IN FILE CA (1907 TO DATE)
 372 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA
 36505 REFERENCES IN FILE CAPLUS (1907 TO DATE)

L16 ANSWER 3 OF 7 REGISTRY COPYRIGHT 2004 ACS on STN
 RN 7440-70-2 REGISTRY

CN Calcium (8CI, 9CI) (CA INDEX NAME)

OTHER NAMES:

CN 32: PN: WO2004005346 PAGE: 5 claimed sequence

CN Atomic calcium

CN Blood-coagulation factor IV

CN Calcium atom

CN Calcium element

CN Praval

DR 8047-59-4

MF Ca

CI COM

LC STN Files: ADISNEWS, AGRICOLA, ANABSTR, AQUIRE, BIOBUSINESS, BIOSIS, BIOTECHNO, CA, CABA, CANCERLIT, CAOLD, CAPLUS, CASREACT, CBNB, CEN, CHEMCATS, CHEMINFORMRX, CHEMLIST, CIN, CSCHEM, CSNB, DDFU, DETHERM*, DIOGENES, DIPPR*, DRUGU, EMBASE, ENCOMPLIT, ENCOMPLIT2, ENCOMPPAT, ENCOMPPAT2, HSDB*, IFICDB, IFIPAT, IFIUDB, IMSCOSEARCH, IPA, MEDLINE, MRCK*, MSDS-OHS, NAPRALERT, NIOSHTIC, PIRA, PROMT, RTECS*, TOXCENTER, TULSA, ULIDAT, USPAT2, USPATFULL, VETU, VTB

(*File contains numerically searchable property data)

Other Sources: DSL**, EINECS**, TSCA**

(**Enter CHEMLIST File for up-to-date regulatory information)

DT.CA Caplus document type: Book; Conference; Dissertation; Journal; Patent; Preprint; Report

RL.P Roles from patents: ANST (Analytical study); BIOL (Biological study); CMBI (Combinatorial study); FORM (Formation, nonpreparative); MSC (Miscellaneous); OCCU (Occurrence); PREP (Preparation); PROC (Process); PRP (Properties); RACT (Reactant or reagent); USES (Uses); NORL (No role in record)

RLD.P Roles for non-specific derivatives from patents: ANST (Analytical study); BIOL (Biological study); FORM (Formation, nonpreparative); MSC (Miscellaneous); OCCU (Occurrence); PREP (Preparation); PROC (Process); PRP (Properties); RACT (Reactant or reagent); USES (Uses)

RL.NP Roles from non-patents: ANST (Analytical study); BIOL (Biological

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study); CMBI (Combinatorial study); FORM (Formation, nonpreparative); MSC (Miscellaneous); OCCU (Occurrence); PREP (Preparation); PROC (Process); PRP (Properties); RACT (Reactant or reagent); USES (Uses); NORL (No role in record)

RLD.NP Roles for non-specific derivatives from non-patents: ANST (Analytical study); BIOL (Biological study); CMBI (Combinatorial study); FORM (Formation, nonpreparative); MSC (Miscellaneous); OCCU (Occurrence); PREP (Preparation); PROC (Process); PRP (Properties); RACT (Reactant or reagent); USES (Uses)

Ca

345493 REFERENCES IN FILE CA (1907 TO DATE)
 7205 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA
 345821 REFERENCES IN FILE CAPLUS (1907 TO DATE)
 1 REFERENCES IN FILE CAOLD (PRIOR TO 1967)

L16 ANSWER 4 OF 7 REGISTRY COPYRIGHT 2004 ACS on STN
 RN 7440-23-5 REGISTRY
 CN Sodium (8CI, 9CI) (CA INDEX NAME)
 OTHER NAMES:
 CN Atomic sodium
 CN Natrium
 CN Sodium atom
 CN Sodium metal
 CN Sodium-23
 DR 184637-88-5, 213530-35-9, 351903-26-9
 MF Na
 CI COM
 LC STN Files: ADISNEWS, AGRICOLA, ANABSTR, AQUIRE, BIOBUSINESS, BIOSIS, BIOTECHNO, CA, CABA, CANCERLIT, CAPLUS, CASREACT, CBNB, CEN, CHEMCATS, CHEMINFORMRX, CHEMLIST, CIN, CSCHM, CSNB, DDFU, DETHERM*, DIOGENES, DIPPR*, DRUGU, EMBASE, ENCOMPLIT, ENCOMPLIT2, ENCOMPPAT, ENCOMPPAT2, HSDB*, IFICDB, IFIPAT, IFIUDB, IPA, MEDLINE, MRCK*, MSDS-OHS, NAPRALERT, NIOSHTIC, PDLCOM*, PIRA, PROMT, RTECS*, TOXCENTER, TULSA, ULIDAT, USPAT2, USPATFULL, VTB
 (*File contains numerically searchable property data)
 Other Sources: DSL**, EINECS**, TSCA**
 (**Enter CHEMLIST File for up-to-date regulatory information)

DT.CA Caplus document type: Book; Conference; Dissertation; Journal; Patent; Preprint; Report

RL.P Roles from patents: ANST (Analytical study); BIOL (Biological study); CMBI (Combinatorial study); FORM (Formation, nonpreparative); MSC (Miscellaneous); OCCU (Occurrence); PREP (Preparation); PROC (Process); PRP (Properties); RACT (Reactant or reagent); USES (Uses); NORL (No role in record)

RLD.P Roles for non-specific derivatives from patents: ANST (Analytical study); BIOL (Biological study); FORM (Formation, nonpreparative); MSC (Miscellaneous); OCCU (Occurrence); PREP (Preparation); PROC (Process); PRP (Properties); RACT (Reactant or reagent); USES (Uses)

RL.NP Roles from non-patents: ANST (Analytical study); BIOL (Biological study); CMBI (Combinatorial study); FORM (Formation, nonpreparative); MSC (Miscellaneous); OCCU (Occurrence); PREP (Preparation); PROC (Process); PRP (Properties); RACT (Reactant or reagent); USES (Uses); NORL (No role in record)

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Na

207761 REFERENCES IN FILE CA (1907 TO DATE)
 4421 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA
 207925 REFERENCES IN FILE CAPLUS (1907 TO DATE)

L16 ANSWER 5 OF 7 REGISTRY COPYRIGHT 2004 ACS on STN
 RN 7440-09-7 REGISTRY
 CN Potassium (8CI, 9CI) (CA INDEX NAME)
 DR 31079-13-7
 MF K

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CI COM
 LC STN Files: ADISNEWS, AGRICOLA, ANABSTR, AQUIRE, BIOBUSINESS, BIOSIS, BIOTECHNO, CA, CABA, CANCERLIT, CAOLD, CAPLUS, CASREACT, CBNB, CEN, CHEMCATS, CHEMINFORMRX, CHEMLIST, CIN, CSCHEM, CSNB, DDFU, DETHERM*, DIOGENES, DIPPR*, DRUGU, EMBASE, ENCOMPLIT, ENCOMPLIT2, ENCOMPPAT, ENCOMPPAT2, HSDB*, IFICDB, IFIPAT, IFIUDB, IPA, MEDLINE, MRCK*, MSDS-OHS, NAPRALERT, NIOSHTIC, PDLCOM*, PIRA, PROMT, RTECS*, TOXCENTER, TULSA, ULIDAT, USPAT2, USPATFULL, VETU, VTB
 (*File contains numerically searchable property data)
 Other Sources: DSL**, EINECS**, TSCA**
 (**Enter CHEMLIST File for up-to-date regulatory information)
 DT.CA Caplus document type: Book; Conference; Dissertation; Journal; Patent; Preprint; Report
 RL.P Roles from patents: ANST (Analytical study); BIOL (Biological study); FORM (Formation, nonpreparative); MSC (Miscellaneous); OCCU (Occurrence); PREP (Preparation); PROC (Process); PRP (Properties); RACT (Reactant or reagent); USES (Uses); NORL (No role in record)
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K

PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

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 3652 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA
 202546 REFERENCES IN FILE CAPLUS (1907 TO DATE)
 1 REFERENCES IN FILE CAOLD (PRIOR TO 1967)

L16 ANSWER 6 OF 7 REGISTRY COPYRIGHT 2004 ACS on STN

RN 7439-95-4 REGISTRY

CN Magnesium (8CI, 9CI) (CA INDEX NAME)

OTHER NAMES:

CN Magnesium element

CN PK 31

CN PK 31 (magnesium)

CN Rieke's active magnesium

DR 14147-08-1, 67208-78-0, 199281-20-4, 298688-48-9

MF Mg

CI COM

LC STN Files: ANABSTR, AQUIRE, BIOBUSINESS, BIOSIS, BIOTECHNO, CA, CABA, CANCERLIT, CAPLUS, CASREACT, CBNB, CEN, CHEMCATS, CHEMINFORMRX, CHEMLIST, CIN, CSCHEM, CSNB, DDFU, DETHERM*, DRUGU, EMBASE, ENCOMPLIT, ENCOMPLIT2, ENCOMPPAT, ENCOMPPAT2, HSDB*, IFICDB, IFIPAT, IFIUDB, IPA, MEDLINE, MRCK*, MSDS-OHS, NAPRALERT, NIOSHTIC, RTECS*, TOXCENTER, ULIDAT, USPAT2, USPATFULL, VETU, VTB
 (*File contains numerically searchable property data)
 Other Sources: DSL**, EINECS**, TSCA**
 (**Enter CHEMLIST File for up-to-date regulatory information)
 DT.CA Caplus document type: Book; Conference; Dissertation; Journal; Patent; Preprint; Report
 RL.P Roles from patents: ANST (Analytical study); BIOL (Biological study); CMBI (Combinatorial study); FORM (Formation, nonpreparative); MSC (Miscellaneous); OCCU (Occurrence); PREP (Preparation); PROC (Process); PRP (Properties); RACT (Reactant or reagent); USES (Uses); NORL (No role in record)
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 RL.NP Roles from non-patents: ANST (Analytical study); BIOL (Biological

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study); CMBI (Combinatorial study); FORM (Formation, nonpreparative);
MSC (Miscellaneous); OCCU (Occurrence); PREP (Preparation); PROC
(Process); PRP (Properties); RACT (Reactant or reagent); USES (Uses);
NORL (No role in record)

RLD.NP Roles for non-specific derivatives from non-patents: ANST (Analytical
study); BIOL (Biological study); CMBI (Combinatorial study); FORM
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PREP (Preparation); PROC (Process); PRP (Properties); RACT (Reactant or
reagent); USES (Uses)

Mg

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6830 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA
200199 REFERENCES IN FILE CAPLUS (1907 TO DATE)

L16 ANSWER 7 OF 7 REGISTRY COPYRIGHT 2004 ACS on STN

RN 7439-89-6 REGISTRY

CN Iron (7CI, 8CI, 9CI) (CA INDEX NAME)

OTHER NAMES:

CN 300A
CN 3ZhP
CN A 131
CN A 227
CN AC 325
CN Ancor B
CN Ancor EN.80/150
CN Ancor Image 100
CN AQ 80
CN Armco 80
CN Armco iron
CN ASC 300
CN ASC 300 (metal)
CN Atomel 300M200
CN Atomel 500M
CN Atomet 28
CN Atomet 95
CN Atomet 95G
CN Atomet 95SP
CN Atomiron 44MR
CN Atomiron 5M
CN Atomiron AFP 25
CN Atomiron AFP 5
CN ATW 230
CN ATW 432
CN BASF-EW
CN Carbon 0.17, iron 99.83 (atomic)
CN Carbonyl iron
CN CM
CN CM (iron)
CN Copy Powder CS 105-175
CN DH
CN DKP
CN DKP (metal)
CN DM 96
CN DM 96 (iron)
CN DNK 2R
CN DSP 1000
CN DSP 128B
CN DSP 135
CN DSP 135C
CN DSP 138
CN EF 1000
CN EF 250
CN EFV
CN EFV 200/300
CN EFV 250
CN EFV 250/400
CN Electrolytic iron
CN EO 5A

ADDITIONAL NAMES NOT AVAILABLE IN THIS FORMAT - Use FCN, FIDE, or ALL for

Searched by Noble Jarrell

DISPLAY
 DR 8011-79-8, 8053-60-9, 129048-51-7, 73135-38-3, 70884-35-4, 39344-71-3,
 190454-13-8, 195161-83-2, 199281-22-6, 443783-52-6, 675141-17-0
 MF Fe
 CI COM
 LC STN Files: ADISNEWS, AGRICOLA, ANABSTR, AQUIRE, BIOBUSINESS, BIOSIS,
 BIOTECHNO, CA, CABA, CANCERLIT, CAOLD, CAPLUS, CASREACT, CBNB, CEN,
 CHEMCATS, CHEMINFORMRX, CHEMLIST, CIN, CSCHM, CSNB, DDFU, DETHERM*,
 DIOGENES, DIPPR*, DRUGU, EMBASE, ENCOMPLIT, ENCOMPLIT2, ENCOMPPAT,
 ENCOMPAT2, HSDB*, IFICDB, IFIPAT, IFIUDB, IPA, MEDLINE, MRCK*,
 MSDS-OHS, NIOSHTIC, PIRA, PROMT, RTECS*, TOXCENTER, TULSA, ULIDAT,
 USPAT2, USPATFULL, VETU, VTB
 (*File contains numerically searchable property data)
 Other Sources: DSL**, EINECS**, TSCA**
 (**Enter CHEMLIST File for up-to-date regulatory information)
 DT.CA Caplus document type: Book; Conference; Dissertation; Journal; Patent;
 Preprint; Report
 RL.P Roles from patents: ANST (Analytical study); BIOL (Biological study);
 CMBI (Combinatorial study); FORM (Formation, nonpreparative); MSC
 (Miscellaneous); OCCU (Occurrence); PREP (Preparation); PROC (Process);
 PRP (Properties); RACT (Reactant or reagent); USES (Uses); NORL (No role
 in record)
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 NORL (No role in record)
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 PREP (Preparation); PROC (Process); PRP (Properties); RACT (Reactant or
 reagent); USES (Uses)

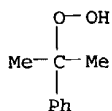
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PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

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 399964 REFERENCES IN FILE CAPLUS (1907 TO DATE)
 1 REFERENCES IN FILE CAOLD (PRIOR TO 1967)

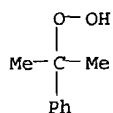
=> d ide l27 tot

L27 ANSWER 1 OF 5 REGISTRY COPYRIGHT 2004 ACS on STN
 RN 26980-23-4 REGISTRY
 CN Hydroperoxide, .alpha.,.alpha.-dimethylbenzyl, hydrate (8CI) (CA INDEX
 NAME)
 OTHER NAMES:
 CN Cumene peroxide hydrate
 MF C9 H12 O2 . x H2 O
 LC STN Files: CA, CAPLUS
 DT.CA Caplus document type: Conference
 RL.NP Roles from non-patents: USES (Uses)
 CRN (80-15-9)

●x H₂O

1 REFERENCES IN FILE CA (1907 TO DATE)
1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

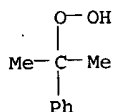
L27 ANSWER 2 OF 5 REGISTRY COPYRIGHT 2004 ACS on STN
RN 23033-03-6 REGISTRY
CN Hydroperoxide, 1-methyl-1-phenylethyl, potassium salt (9CI) (CA INDEX NAME)
OTHER CA INDEX NAMES:
CN Hydroperoxide, .alpha.,.alpha.-dimethylbenzyl, potassium deriv. (6CI)
CN Hydroperoxide, .alpha.,.alpha.-dimethylbenzyl, potassium salt (8CI)
OTHER NAMES:
CN .alpha.,.alpha.-Dimethylbenzyl hydroperoxide potassium salt
CN Cumene hydroperoxide potassium salt
CN Cumyl hydroperoxide potassium salt
CN Potassium cumyl peroxide
MF C9 H12 O2 . K
LC STN Files: CA, CAOLD, CAPLUS, CASREACT
DT.CA Caplus document type: Conference; Journal; Patent
RL.P Roles from patents: PREP (Preparation); RACT (Reactant or reagent)
RL.NP Roles from non-patents: FORM (Formation, nonpreparative); PREP (Preparation); PROC (Process); PRP (Properties); RACT (Reactant or reagent)
CRN (80-15-9)



● K

22 REFERENCES IN FILE CA (1907 TO DATE)
22 REFERENCES IN FILE CAPLUS (1907 TO DATE)
1 REFERENCES IN FILE CAOLD (PRIOR TO 1967)

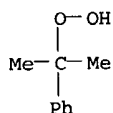
L27 ANSWER 3 OF 5 REGISTRY COPYRIGHT 2004 ACS on STN
RN 20013-63-2 REGISTRY
CN Hydroperoxide, 1-methyl-1-phenylethyl, sodium salt (9CI) (CA INDEX NAME)
OTHER CA INDEX NAMES:
CN Hydroperoxide, .alpha.,.alpha.-dimethylbenzyl, sodium deriv. (6CI)
CN Hydroperoxide, .alpha.,.alpha.-dimethylbenzyl, sodium salt (8CI)
CN Sodium, [(alpha.,.alpha.-dimethylbenzyl)dioxy]- (7CI)
OTHER NAMES:
CN .alpha.,.alpha.-Dimethylbenzyl hydroperoxide sodium salt
CN Cumene hydroperoxide sodium salt
CN Cumyl hydroperoxide sodium salt
CN Sodium .alpha.-cumyl peroxide
CN Sodium .alpha.-phenylisopropyl hydroperoxide
CN Sodium cumyl peroxide
MF C9 H12 O2 . Na
LC STN Files: BEILSTEIN*, CA, CAOLD, CAPLUS, CASREACT, IFICDB, IFIPAT, IFIUDB, USPATFULL
(*File contains numerically searchable property data)
DT.CA Caplus document type: Conference; Journal; Patent
RL.P Roles from patents: PROC (Process); RACT (Reactant or reagent); USES (Uses); NORL (No role in record)
RL.NP Roles from non-patents: BIOL (Biological study); PREP (Preparation); PROC (Process); PRP (Properties); RACT (Reactant or reagent); USES (Uses); NORL (No role in record)
CRN (80-15-9)



● Na

46 REFERENCES IN FILE CA (1907 TO DATE)
 46 REFERENCES IN FILE CAPLUS (1907 TO DATE)
 11 REFERENCES IN FILE CAOLD (PRIOR TO 1967)

L27 ANSWER 4 OF 5 REGISTRY COPYRIGHT 2004 ACS on STN
 RN 14680-30-9 REGISTRY
 CN Hydroperoxide, 1-methyl-1-phenylethyl, lithium salt (9CI) (CA INDEX NAME)
 OTHER CA INDEX NAMES:
 CN Hydroperoxide, .alpha.,.alpha.-dimethylbenzyl, lithium salt (8CI)
 OTHER NAMES:
 CN .alpha.,.alpha.-Dimethylbenzyl hydroperoxide lithium salt
 CN Cumene hydroperoxide lithium salt
 MF C9 H12 O2 . Li
 LC STN Files: BEILSTEIN*, CA, CAPLUS, CASREACT, CHEMINFORMRX
 (*File contains numerically searchable property data)
 DT.CA Caplus document type: Conference; Journal
 RL.NP Roles from non-patents: FORM (Formation, nonpreparative); PREP
 (Preparation); PRP (Properties); RACT (Reactant or reagent); USES (Uses)
 CRN (80-15-9)



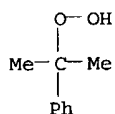
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11 REFERENCES IN FILE CA (1907 TO DATE)
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L27 ANSWER 5 OF 5 REGISTRY COPYRIGHT 2004 ACS on STN
 RN 80-15-9 REGISTRY
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 OTHER CA INDEX NAMES:
 CN Hydroperoxide, .alpha.,.alpha.-dimethylbenzyl (8CI)
 OTHER NAMES:
 CN .alpha.,.alpha.-Dimethylbenzyl hydroperoxide
 CN .alpha.-Cumene hydroperoxide
 CN .alpha.-Cumyl hydroperoxide
 CN 1-Methyl-1-phenylethyl hydroperoxide
 CN 2-Hydroperoxy-2-phenylpropane
 CN 2-Phenyl-2-propyl hydroperoxide
 CN 7-Cumyl hydroperoxide
 CN CHP 158
 CN CHP 90
 CN CU 90
 CN Cumen hydroperoxide
 CN Cumene hydroperoxide
 CN Cumenyl hydroperoxide
 CN Cumyl hydroperoxide
 CN H 80
 CN Hyperiz
 CN Isopropylbenzene hydroperoxide
 CN Kayacumene H
 CN Luperox CU 90
 CN Percumyl H
 CN Percumyl H 80
 CN R 239A
 CN Trigonox K 80

Searched by Noble Jarrell

CN Trigonox R 239A
 CN Trigonox R 239R
 FS 3D CONCORD
 DR 79568-78-8
 MF C9 H12 O2
 CI COM
 LC STN Files: AGRICOLA, ANABSTR, AQUIRE, BEILSTEIN*, BIOBUSINESS, BIOSIS, BIOTECHNO, CA, CANCERLIT, CAOLD, CAPLUS, CASREACT, CBNB, CEN, CHEMCATS, CHEMINFORMRX, CHEMLIST, CIN, CSCHEM, CSNB, DDFU, DETHERM*, DIPPR*, DRUGU, EMBASE, ENCOMPLIT, ENCOMPLIT2, ENCOMPAT, ENCOMPAT2, GMELIN*, HODOC*, HSDB*, IFICDB, IFIPAT, IFIUDB, MEDLINE, MSDS-OHS, NIOSHTIC, PDLCOM*, PIRA, PROMT, RTECS*, SPECINFO, SYNTHLINE, TOXCENTER, USPAT2, USPATFULL, VTB
 (*File contains numerically searchable property data)
 Other Sources: DSL**, EINECS**, TSCA**
 (**Enter CHEMLIST File for up-to-date regulatory information)
 DT.CA Caplus document type: Conference; Dissertation; Journal; Patent; Report
 RL.P Roles from patents: ANST (Analytical study); BIOL (Biological study); MSC (Miscellaneous); OCCU (Occurrence); PREP (Preparation); PROC (Process); PRP (Properties); RACT (Reactant or reagent); USES (Uses); NORL (No role in record)
 RLD.P Roles for non-specific derivatives from patents: ANST (Analytical study); PREP (Preparation); PROC (Process); PRP (Properties); RACT (Reactant or reagent); USES (Uses)
 RL.NP Roles from non-patents: ANST (Analytical study); BIOL (Biological study); FORM (Formation, nonpreparative); MSC (Miscellaneous); OCCU (Occurrence); PREP (Preparation); PROC (Process); PRP (Properties); RACT (Reactant or reagent); USES (Uses); NORL (No role in record)
 RLD.NP Roles for non-specific derivatives from non-patents: ANST (Analytical study); BIOL (Biological study); FORM (Formation, nonpreparative); PREP (Preparation); PROC (Process); PRP (Properties); RACT (Reactant or reagent); USES (Uses)



****PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT****

5965 REFERENCES IN FILE CA (1907 TO DATE)
 44 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA
 5969 REFERENCES IN FILE CAPLUS (1907 TO DATE)
 28 REFERENCES IN FILE CAOLD (PRIOR TO 1967)

=> d ide 120

L20 ANSWER 1 OF 1 REGISTRY COPYRIGHT 2004 ACS on STN
 RN 7732-18-5 REGISTRY
 CN Water (8CI, 9CI) (CA INDEX NAME)
 OTHER NAMES:
 CN Distilled water
 CN DRiWATER
 CN Hydrogen oxide (H2O)
 CN NSC 147337
 CN R 718
 FS 3D CONCORD
 DR 558440-22-5, 558440-53-2
 MF H2 O
 CI COM
 LC STN Files: ANABSTR, BIOSIS, BIOTECHNO, CA, CABA, CANCERLIT, CAPLUS, CASREACT, CBNB, CHEMCATS, CHEMINFORMRX, CHEMLIST, CHEMSAFE, CSCHEM, CSNB, DETHERM*, DIPPR*, EMBASE, GMELIN*, IFICDB, IFIPAT, IFIUDB, IPA, MEDLINE, MRCK*, MSDS-OHS, NIOSHTIC, PDLCOM*, RTECS*, SPECINFO, TOXCENTER, ULIDAT, USAN, USPAT2, USPATFULL, VTB
 (*File contains numerically searchable property data)
 Other Sources: DSL**, EINECS**, TSCA**
 (**Enter CHEMLIST File for up-to-date regulatory information)
 DT.CA Caplus document type: Book; Conference; Dissertation; Journal; Patent;

Preprint; Report

RL.P Roles from patents: ANST (Analytical study); BIOL (Biological study); FORM (Formation, nonpreparative); MSC (Miscellaneous); OCCU (Occurrence); PREP (Preparation); PROC (Process); PRP (Properties); RACT (Reactant or reagent); USES (Uses); NORL (No role in record)

RLD.P Roles for non-specific derivatives from patents: ANST (Analytical study); BIOL (Biological study); FORM (Formation, nonpreparative); MSC (Miscellaneous); PREP (Preparation); PROC (Process); PRP (Properties); RACT (Reactant or reagent); USES (Uses)

RL.NP Roles from non-patents: ANST (Analytical study); BIOL (Biological study); CMBI (Combinatorial study); FORM (Formation, nonpreparative); MSC (Miscellaneous); OCCU (Occurrence); PREP (Preparation); PROC (Process); PRP (Properties); RACT (Reactant or reagent); USES (Uses); NORL (No role in record)

RLD.NP Roles for non-specific derivatives from non-patents: ANST (Analytical study); BIOL (Biological study); FORM (Formation, nonpreparative); MSC (Miscellaneous); OCCU (Occurrence); PREP (Preparation); PROC (Process); PRP (Properties); RACT (Reactant or reagent); USES (Uses)

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****PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT****

341778 REFERENCES IN FILE CA (1907 TO DATE)
 1056 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA
 342258 REFERENCES IN FILE CAPLUS (1907 TO DATE)

=> d ide 121

L21 ANSWER 1 OF 1 REGISTRY COPYRIGHT 2004 ACS on STN
 RN 616-91-1 REGISTRY
 CN L-Cysteine, N-acetyl- (9CI) (CA INDEX NAME)
 OTHER CA INDEX NAMES:
 CN Cysteine, N-acetyl-, L- (6CI, 8CI)
 OTHER NAMES:
 CN (S)-N-Acetylcysteine
 CN Acetylcysteine
 CN Airbron
 CN Broncholysin
 CN Broncholysin (mucolytic)
 CN Brunac
 CN Exomuc
 CN Fabrol
 CN Fluatox
 CN Fluibiotic
 CN Fluimicil
 CN Fluimicil Infantil
 CN Fluimucetin
 CN Fluimucil
 CN Fluprowit
 CN L-Acetylcysteine
 CN L-N-Acetylcysteine
 CN Mercapturic acid
 CN Mercapturic acid, (R)-
 CN Muco Sanigen
 CN Mucocedyl
 CN Mucofilin
 CN Mucolator
 CN Mucolyticum
 CN Mucolyticum-Lappe
 CN Mucolytikum Lappe
 CN Mucomyst
 CN Mucosolvin
 CN Mucret
 CN N-Acetyl-(R)-cysteine
 CN N-Acetyl-L-cysteine
 CN N-Acetylcysteine
 CN N.alpha.-Acetylcysteine
 CN Neo-Fluimucil
 CN NSC 111180
 CN Parvolex
 CN Respaire

CN Tixair
 FS STEREOSEARCH
 DR 7696-05-1
 MF C5 H9 N O3 S
 CI COM
 LC STN Files: ADISINSIGHT, ADISNEWS, AGRICOLA, ANABSTR, AQUIRE, BEILSTEIN*,
 BIOBUSINESS, BIOSIS, BIOTECHNO, CA, CABA, CANCERLIT, CAOLD, CAPLUS,
 CASREACT, CBNB, CHEMCATS, CHEMINFORMRX, CHEMLIST, CIN, CSCHEM, CSNB,
 DDFU, DIOGENES, DRUGU, EMBASE, GMELIN*, HODOC*, HSDB*, IFICDB, IFIPAT,
 IFIUDB, IMSCOSEARCH, IMSDRUGNEWS, IMSRESEARCH, IPA, MEDLINE, MRCK*,
 MSDS-OHS, NIOSHTIC, PHAR, PROMT, PROUSDDR, PS, RTECS*, SPECINFO,
 SYNTHLINE, TOXCENTER, ULIDAT, USAN, USPAT2, USPATFULL, VETU
 (*File contains numerically searchable property data)
 Other Sources: DSL**, EINECS**, TSCA**, WHO
 (**Enter CHEMLIST File for up-to-date regulatory information)

DT.CA Caplus document type: Book; Conference; Dissertation; Journal; Patent;
 Report

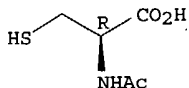
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 FORM (Formation, nonpreparative); MSC (Miscellaneous); OCCU
 (Occurrence); PREP (Preparation); PROC (Process); PRP (Properties); RACT
 (Reactant or reagent); USES (Uses); NORL (No role in record)

RLD.P Roles for non-specific derivatives from patents: BIOL (Biological
 study); OCCU (Occurrence); PREP (Preparation); PROC (Process); PRP
 (Properties); RACT (Reactant or reagent); USES (Uses)

RL.NP Roles from non-patents: ANST (Analytical study); BIOL (Biological
 study); FORM (Formation, nonpreparative); MSC (Miscellaneous); OCCU
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RLD.NP Roles for non-specific derivatives from non-patents: ANST (Analytical
 study); BIOL (Biological study); FORM (Formation, nonpreparative); OCCU
 (Occurrence); PREP (Preparation); PROC (Process); PRP (Properties); RACT
 (Reactant or reagent); USES (Uses)

Absolute stereochemistry.



PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

5463 REFERENCES IN FILE CA (1907 TO DATE)
 234 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA
 5481 REFERENCES IN FILE CAPLUS (1907 TO DATE)
 28 REFERENCES IN FILE CAOLD (PRIOR TO 1967)

=> => d his

(FILE 'HOME' ENTERED AT 13:00:33 ON 13 OCT 2004)

L1 FILE 'HCAPLUS' ENTERED AT 13:00:39 ON 13 OCT 2004
 1 US20040087023/PN

FILE 'REGISTRY' ENTERED AT 13:00:59 ON 13 OCT 2004

L2 FILE 'HCAPLUS' ENTERED AT 13:01:00 ON 13 OCT 2004
 TRA L1 1- RN : 42 TERMS

L3 FILE 'REGISTRY' ENTERED AT 13:01:01 ON 13 OCT 2004
 42 SEA L2

L4 FILE 'WPIX' ENTERED AT 13:01:04 ON 13 OCT 2004
 1 US20040087023/PN

L5 FILE 'REGISTRY' ENTERED AT 13:22:27 ON 13 OCT 2004
 1 50-99-7

L6 2114 C6H12O6

L7 141 L6 AND GLUCOSE NOT ((PMS OR MAN OR IDS OR MXS)/CI OR MIXT OR CO

L8 1 79-83-4

L9 27 C9H17NO5 AND PANTOTHEN? NOT ((PMS OR MAN OR IDS OR MXS)/CI OR M

L10 20 L9 NOT (HYDRAZONE OR KANAMYCIN OR NAPHTHACENECARBOXAMIDE)

L11 19 L10 NOT OCTAHYDRO

Searched by Noble Jarrell

L12 1 62-49-7
 L13 221 C5H14NO AND CHOLINE NOT ((PMS OR MAN OR IDS OR MXS)/CI OR MIXT
 L14 1 7439-89-6
 L15 6 7439-95-4 OR 7440-09-7 OR 7440-23-5 OR 7440-70-2 OR 14265-44-2
 L16 7 L14-15
 L17 1 80-15-9
 L18 6 C9H12O2 AND CUMENE NOT ((PMS OR MAN OR IDS OR MXS)/CI OR MIXT O
 L19 5 L18 NOT BENZENEDIOL
 L20 1 7732-18-5
 L21 1 616-91-1
 L22 26 C5H9NO3S AND CYSTEINE AND ACETYL NOT ((PMS OR MAN OR IDS OR MXS
 L23 24 L22 NOT ("3-(ACETYLAMINO)" OR "ACETATE (ESTER)")
 L24 141 L5 OR L7
 L25 19 L8 OR L11
 L26 221 L12-13
 L27 5 L17 OR L19
 L28 24 L21 OR L23

FILE 'HCAPLUS' ENTERED AT 13:55:17 ON 13 OCT 2004

L29 174128 L24
 L30 375313 GLUCOSE OR ANHYDROUS (1A) DEXTROSE OR CARTOSE OR CERELOSE OR CL
 L31 17 MAXIM (1A) ENERGY OR MERITOSE OR ROFEROSE OR STALEYDEX OR TABFI
 E GLUCOSE/CT
 E E3+ALL
 L32 171087 GLUCOSE/CT
 L33 6331 L25
 L34 7228 PANTOTHENIC (1A) ACID OR CHICK (1A) ANTIDERMATITIS (1A) FACTOR
 L35 14704 L26
 L36 48072 ETHANAMINIUM (1A) HYDROXY (3A) TRIMETHYL OR CHOLINE OR HYDROXYE
 L37 3122 L29-32 AND L33-36
 L38 1439 (CHLORIDE OR POTASSIUM OR ORTHOPHOSPHATE OR PHOSPHATE OR MAGNES
 L39 6025 L27 OR CUMENE (1A) PEROXIDE (1A) HYDRATE OR HYDROPEROXIDE (2A)
 L40 10479 L27 OR (CUMEN? OR CUMYL) (1A) (PEROXIDE(1A) HYDRATE OR HYDROPER
 L41 1764 (METHYL (1A) PHENYLETHYL OR PHENYL (1A) PROPYL OR ISOPROPYLBENZE
 L42 2261811 L20 OR WATER OR DRIWATER OR (DIHYDROGEN OR HYDROGEN) (1A) (OXID
 L43 2 L38 AND L39-41
 L44 221 L38 AND L42
 L45 7919 L28 OR ACETYLCYSTEINE OR BRONCHOLYSIS OR BRUNAC OR EXOMUC OR FA
 L46 3110 MUCOSOLVIN# OR MUCRET OR ACETYL (1A) CYSTEINE OR FLUIMUCIL OR P
 L47 6 L44 AND L45-46
 E CRAWFORD J/AU
 L48 128 E3, E12-14
 E CARWFORD F/AU
 E CRAWFORD F/AU
 L49 1021 (RES? AND DEV? AND FOUND?)/CS, PA
 L50 2 L37 AND L48-49
 L51 2 (L43 OR L47) AND L48-49
 L52 5 (L43 OR L47) NOT L51
 L53 0 L52 AND (PY<=1996 OR AY<=1996 OR PRY<=1996 OR PD<19960903 OR
 E MITOGEN/CT
 E E3+ALL
 E E2+ALL
 L54 5189 MITOGENS/CT
 L55 3 L44 AND L54
 L56 2 L55 AND L48-49
 L57 1 L55 NOT L56
 L58 2 L43 AND L48-49
 L59 2 L50 OR L51 OR L56
 E MITOSIS/CT
 E E3+ALL
 L60 9354 MITOSIS/CT
 L61 0 L44 AND L60
 E CELL DIVISION/CT
 E E3+ALL
 L62 64592 CELL DIVISION+NT/CT
 L63 0 L44 AND L62
 L64 4 L42 AND L45 AND (L54 OR L60 OR L62)
 L65 1 L64 AND L48-49
 L66 3 L64 NOT L65
 L67 0 L66 AND (PY<=1996 OR AY<=1996 OR PRY<=1996 OR PD<19960903 OR AD
 L68 1347 L39-41 AND L42
 L69 1069 L68 AND (PY<=1996 OR AY<=1996 OR PRY<=1996 OR PD<19960903 OR AD
 L70 1 L69 AND L45
 L71 1 L70 AND L48-49
 L72 2 L69 AND (L54 OR L60 OR L62)
 L73 2 L72 AND L48-49

L51: Combin. of
 1-3, 5, 7

L77: 4+5

L84: 3, 6, 7

L85: Applant

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      E COMPOSITION/CT
      E E3+ALL
L74    23685 COMPOSITION+OLD,NT/CT
L75    0 L69 AND L74
      E SOLUTION/CT
      E E3+ALL
      E E2+ALL
L76    49633 SOLUTIONS+OLD,NT/CT
L77    1 L69 AND L76
L78    0 L77 AND L48-49
L79    83 L45 AND (L54 OR L60 OR L62)
L80    1 L79 AND L48-49
L81    82 L79 NOT L80
L82    12 L81 AND (PY<=1996 OR AY<=1996 OR PRY<=1996 OR PD<19960903 OR AD
L83    0 L82 AND L42
L84    1 L82 AND (L29 OR L30 OR L31 OR L32 OR L33 OR L34 OR L36 OR L16)
L85    2 L59 OR L65 OR L71 OR L78 OR L80

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=> b hcap

FILE "HCAPLUS" ENTERED AT 15:23:51 ON 13 OCT 2004
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 PLEASE SEE "HELP USAGETERMS" FOR DETAILS.
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FILE COVERS 1907 - 13 Oct 2004 VOL 141 ISS 16
 FILE LAST UPDATED: 12 Oct 2004 (20041012/ED)

This file contains CAS Registry Numbers for easy and accurate substance identification.

=> d all 185 tot

L85 ANSWER 1 OF 2 HCAPLUS COPYRIGHT 2004 ACS on STN
 AN 1998:176040 HCAPLUS
 DN 128:228255
 ED Entered STN: 25 Mar 1998
 TI Assessment of intracellular cysteine and glutathione concentrations
 IN Crawford, J. Fred
 PA Research Development Foundation, USA
 SO PCT Int. Appl., 36 pp.
 CODEN: PIXXD2
 DT Patent
 LA English
 IC ICM C12Q001-02
 ICS C12N005-00
 CC 9-11 (Biochemical Methods)
 FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9810092	A1	19980312	WO 1997-US15451	19970903 <--
W: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GE, HU, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, TJ, TM, TR, TT, UA, UG, UZ, VN, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, KE, LE, MW, SD, SZ, UG, ZW, AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG				
TW 517089	B	20030111	TW 1997-86104556	19970409 <--
CA 2264698	AA	19980312	CA 1997-2264698	19970903 <--
AU 9742464	A1	19980326	AU 1997-42464	19970903 <--
AU 718816	B2	20000420		
EP 931163	A1	19990728	EP 1997-940761	19970903 <--
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, NL, SE, PT, IE, FI				

NZ 334327	A	20000623	NZ 1997-334327	19970903 <--
CN 1268977	A	20001004	CN 1997-197585	19970903 <--
JP 2001500011	T2	20010109	JP 1998-512821	19970903 <--
IL 128650	A1	20021201	IL 1997-128650	19970903 <--
RU 2216020	C2	20031110	RU 1999-106547	19970903 <--
US 2002068270	A1	20020606	US 2001-17625	20011213 <--
US 6709835	B2	20040323		
US 2004087023	A1	20040506	US 2003-696334	20031029 <--
PRAI US 1996-25373P	P	19960903	<--	
US 1997-922279	B3	19970903		
WO 1997-US15451	W	19970903		
US 2001-17625	A3	20011213		

CLASS

PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
WO 9810092	ICM	C12Q001-02
	ICS	C12N005-00
US 2002068270	ECLA	C12N005/00M; C12Q001/28; G01N033/50D <--
US 2004087023	ECLA	C12N005/00M; C12Q001/28; G01N033/50D <--
AB		A medium and method for culturing lymphocytes are provided for determining intracellular concentration of glutathione or cysteine in human lymphocytes to provide biochem. anal. of an individual's capability of dealing with oxidative stress. The medium is a buffered serum-free solution having a pH of from about 6.8 to 7.6 and containing a carbohydrate which is glucose or a compound capable of producing glucose in lymphocytes, pantothenic acid, choline or a substance capable of producing choline in lymphocytes, inorg. ions including chloride, phosphate, calcium, magnesium, potassium, sodium and iron, L-Buthionine-[S.R.]-Sulfoximine, deionized water and a mitogen to stimulate lymphocytes. When determining cysteine concentration, the medium addnl. contains N-Acetyl-L Cysteine and Cumene Hydroperoxide. The method is carried out by inoculating the culture medium with lymphocytes from an individual, incubating the lymphocytes in the medium and comparing the response of the lymphocytes with an average response of lymphocytes from a control group of individuals.
ST		intracellular cysteine glutathione concn
IT		Animal tissue culture
		Mitogens
		Oxidative stress, biological
		(assessment of intracellular cysteine and glutathione concns.)
IT		Amino acids, biological studies
		Antioxidants
		Carbohydrates, biological studies
		Vitamins
		RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)
		(assessment of intracellular cysteine and glutathione concns.)
IT		70-18-8, Glutathione, analysis 3374-22-9, Cysteine
		RL: ANT (Analyte); ANST (Analytical study)
		(assessment of intracellular cysteine and glutathione concns.)
IT		50-99-7, D-Glucose, biological studies 56-40-6,
		Glycine, biological studies 56-45-1, L-Serine, biological studies
		58-05-9, Folic acid 58-85-5, Biotin 59-30-3, Folic acid, biological
		studies 59-43-8, Thiamin, biological studies 59-51-8, Methionine
		59-67-6, Nicotinic acid, biological studies 60-18-4, Tyrosine,
		biological studies 62-49-7, Choline 68-19-9, Vitamin
		b12 70-54-2, Lysine 72-18-4, Valine, biological studies 72-19-5,
		Threonine, biological studies 73-22-3, Tryptophan, biological studies
		73-24-5, Adenine, biological studies 79-83-4,
		Pantothenic acid 80-15-9, Cumene
		Hydroperoxide 83-88-5, Riboflavin, biological studies 87-89-8,
		myo-Inositol 98-92-0, Nicotinamide 127-17-3, biological studies
		150-30-1, Phenylalanine 328-39-2, Leucine 443-79-8, Isoleucine
		616-91-1, N-Acetyl-L-Cysteine 4998-57-6,
		Histidine 6899-04-3, Glutamine 7200-25-1, Arginine 7439-89-6
		, Iron, biological studies 7439-95-4,
		Magnesium, biological studies 7440-09-7,
		Potassium, biological studies 7440-23-5, Sodium
		, biological studies 7440-70-2, Calcium, biological
		studies 7732-18-5, Water, biological studies
		8059-24-3, Vitamin b6 14265-44-2, Phosphate,
		biological studies 16887-00-6, Chloride, biological
		studies 83730-53-4, L-Buthionine-Sulfoximine
		RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)

(assessment of intracellular cysteine and glutathione concns.)

RE.CNT 5 THERE ARE 5 CITED REFERENCES AVAILABLE FOR THIS RECORD

RE

- (1) Bounous; US 5290571 A 1994 HCAPLUS
- (2) Darfler; US 4927762 A 1990 HCAPLUS
- (3) Griffith; US 5171885 A 1992 HCAPLUS
- (4) Ponting; US 5405772 A 1995 HCAPLUS
- (5) Torishima; US 5326699 A 1994

L85 ANSWER 2 OF 2 HCAPLUS COPYRIGHT 2004 ACS on STN

AN 1998:31414 HCAPLUS

DN 128:72646

ED Entered STN: 19 Jan 1998

TI Biochemical analysis of antioxidant function

IN Crawford, J. Fred; Bucci, Luke

PA Research Development Foundation, USA

SO PCT Int. Appl., 32 pp.

CODEN: PIXXD2

DT Patent

LA English

IC ICM C12Q001-08

ICS C12N005-00; C12N005-02; C12N001-38

CC 9-11 (Biochemical Methods)

FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI WO 9748821	A1	19971224	WO 1997-US10328	19970618
W: AL, AM, AT, AU, AZ, BB, BG, BR, BY, CA, CH, CN, CZ, DE, DK, EE, ES, FI, GB, GE, HU, IL, IS, JP, KE, KG, KP, KR, KZ, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, TJ, TM, TR, TT, UA, UG, UZ, VN, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG				
US 5985665	A	19991116	US 1996-665941	19960619
ZA 9705359	A	19981218	ZA 1997-5359	19970101
CA 2258803	AA	19971224	CA 1997-2258803	19970618
AU 9733934	A1	19980107	AU 1997-33934	19970618
AU 720703	B2	20000608		
EP 925370	A1	19990630	EP 1997-930001	19970618
EP 925370	B1	20021218		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, NL, SE, PT, IE, FI				
CN 1222940	A	19990714	CN 1997-195713	19970618
CN 1109759	B	20030528		
NZ 333231	A	20000128	NZ 1997-333231	19970618
JP 2000514287	T2	20001031	JP 1998-503167	19970618
IL 127576	A1	20001206	IL 1997-127576	19970618
AT 230030	E	20030115	AT 1997-930001	19970618
RU 2233323	C2	20040727	RU 1999-100621	19970618
KR 2000016773	A	20000325	KR 1998-710382	19981218
PRAI US 1996-665941	A	19960619		
WO 1997-US10328	W	19970618		

CLASS

PATENT NO. CLASS PATENT FAMILY CLASSIFICATION CODES

WO 9748821	ICM	C12Q001-08
	ICS	C12N005-00; C12N005-02; C12N001-38
US 5985665	ECLA	C12N005/00M2; G01N033/50D2

AB The present invention provides a cell culture medium useful for a biochem. anal. of antioxidant function in human lymphocytes, said medium comprising, a buffered, serum-free solution containing the following ingredients: a carbohydrate selected from the group consisting of glucose and a compound biol. capable of producing glucose in the cells; a biol. usable form of pantothenic acid; choline or a biol. usable form of a substance capable of producing choline in the cells; inorg. ions comprising chloride, phosphate, calcium, magnesium, potassium, sodium; and iron in a biol. utilizable form, cumene hydroperoxide, deionized water, and a mitogen in an amount effective to stimulate the lymphocytes being assayed; said buffered, serum-free solution having a pH from about 6.8 to 7.6, said cell culture medium characterized by being effective to determine nutritional deficiencies, inadequacies, and imbalances and to biochem. analyze antioxidant function of the lymphocytes. Also provided is a method of biochem. analyzing cellular antioxidant function in an individual

comprising the steps of: inoculating the cell culture medium of the present invention with lymphocytes from said individual; incubating the inoculated cell culture medium; and comparing the response of the lymphocytes with an average response of lymphocytes from a control group of individuals.

- ST biochem analysis antioxidant function
 IT Animal tissue culture
 Antioxidants
 Blood serum
 Culture media
 Ions
 Lymphocyte
 Mitogens
 (biochem. anal. of antioxidant function)
 IT Buffers
 Nutrition, animal
 RL: ANT (Analyte); ANST (Analytical study)
 (biochem. anal. of antioxidant function)
 IT Amino acids, biological studies
 RL: BUU (Biological use, unclassified); BIOL (Biological study); USES
 (Uses)
 (biochem. anal. of antioxidant function)
 IT Carbohydrates, biological studies
 RL: BUU (Biological use, unclassified); BIOL (Biological study); USES
 (Uses)
 (biochem. anal. of antioxidant function)
 IT Vitamins
 RL: BUU (Biological use, unclassified); BIOL (Biological study); USES
 (Uses)
 (biochem. anal. of antioxidant function)
 IT Analysis
 (biochem.; biochem. anal. of antioxidant function)
 IT 50-99-7, D-Glucose, biological studies 52-90-4,
 L-Cysteine, biological studies 56-40-6, Glycine, biological studies
 56-45-1, L-Serine, biological studies 56-85-9, L-Glutamine, biological
 studies 56-87-1, L-Lysine, biological studies 58-05-9, Folic acid
 58-85-5, Biotin 59-30-3, Folic acid, biological studies 59-43-8,
 Thiamin, biological studies 59-67-6, Nicotinic acid, biological studies
 60-18-4, L-Tyrosine, biological studies 61-90-5, L-Leucine, biological
 studies 62-49-7, Choline 63-68-3, L-Methionine,
 biological studies 63-91-2, L-Phenylalanine, biological studies
 68-19-9, Vitamin b12 71-00-1, L-Histidine, biological studies 72-18-4,
 L-Valine, biological studies 72-19-5, L-Threonine, biological studies
 73-22-3, L-Tryptophan, biological studies 73-24-5, Adenine, biological
 studies 73-32-5, L-Isoleucine, biological studies 74-79-3, L-Arginine,
 biological studies 79-83-4, Pantothenic acid
 80-15-9, Cumene hydroperoxide 83-88-5,
 Riboflavin, biological studies 87-89-8, myo-Inositol 98-92-0,
 Nicotinamide 127-17-3, biological studies 7439-89-6,
 Iron, biological studies 7439-95-4, Magnesium,
 biological studies 7440-09-7, Potassium, biological
 studies 7440-23-5, Sodium, biological studies
 7440-70-2, Calcium, biological studies 7732-18-5
 , Water, biological studies 8059-24-3, Vitaminb6
 14265-44-2, Phosphate, biological studies
 16887-00-6, Chloride, biological studies
 RL: BUU (Biological use, unclassified); BIOL (Biological study); USES
 (Uses)
 (biochem. anal. of antioxidant function)

=> d all 157 tot

L57 ANSWER 1 OF 1 HCAPLUS COPYRIGHT 2004 ACS on STN
 AN 1996:441065 HCAPLUS
 DN 125:109689
 ED Entered STN: 26 Jul 1996
 TI Human liver epithelial cell line and culture media for this cell line
 IN Cole, Katharine H.; Lechner, John F.; Reddel, Roger; Harris, Curtis C.;
 Pfeifer, Andrea M.
 PA United States Dept. of Health and Human Services, USA
 SO U.S., 16 pp., Cont.-in-part of U.S. 5,342,777.
 CODEN: USXXAM
 DT Patent
 LA English
 IC ICM C12N005-06

ICS C12N005-10; C12Q001-02; A01N063-00
 NCL 435240200
 CC 9-11 (Biochemical Methods)
 Section cross-reference(s): 1, 4, 13
 FAN.CNT 2

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 5529920	A	19960625	US 1992-879165	19920501
	US 284331	A0	19890615	US 1988-284331	19881214
	US 5342777	A	19940830	US 1992-844873	19920303
	US 5665589	A	19970909	US 1993-25336	19930303
	WO 9420607	A1	19940915	WO 1994-US1910	19940303
	W: AU, CA, JP				
	RW: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
	AU 9463516	A1	19940926	AU 1994-63516	19940303
	EP 687294	A1	19951220	EP 1994-910730	19940303
	EP 687294	B1	20040602		
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LI, LU, MC, NL, PT, SE				
	AT 268378	E	20040615	AT 1994-910730	19940303
	US 5759765	A	19980602	US 1995-458878	19950602
PRAI	US 1988-284331	B1	19881214		
	US 1988-284368	B1	19881214		
	US 1989-377967	B1	19890711		
	US 1992-844873	A2	19920303		
	US 1992-879165	A2	19920501		
	US 1993-25336	A	19930303		
	WO 1994-US1910	W	19940303		

CLASS

PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
US 5529920	ICM	C12N005-06
	ICS	C12N005-10; C12Q001-02; A01N063-00
	NCL	435240200

AB The present invention relates to long-term multiplication and permanent establishment of a cell line of human liver epithelial cells (hepatocytes). The human liver epithelial cell line is capable of mitotically proliferating and continuously growing in vitro under suitable environmental conditions in suitable culture media. A method of producing an immortalized human liver epithelial cell line is also disclosed. The invention also relates to serum-free cell medium developed to support long-term multiplication and permanent establishment of a cell line of human liver epithelial cells. The medium may contain an effective cell growth-promoting amount of calcium ions; an effective cell growth-promoting amount of glucose; an effective amount of insulin to aid cells in glucose uptake; an effective cell growth-promoting amount of hydrocortisone; an effective amount of epidermal growth factor to bind epidermal growth factor receptors on cells; an effective amount of transferrin to increase DNA synthesis in cells; an effective amount of cholera toxin to increase DNA synthesis in cells; an effective amount of triiodothyronine to increase DNA synthesis in cells; and an effective growth-promoting amount of mammalian hormones and mitogenic factors, including lipoprotein, cholesterol, phospholipids, and fatty acids.

ST hepatocyte cell line culture media; liver epithelial cell line culture; neoplasm inhibitor screening hepatocyte culture; carcinogen metab hepatocyte culture; drug screening hepatocyte culture

IT Animal cell line
 (THLE-2; human liver epithelial cell line and culture media for it)

IT Animal tissue culture
 Carcinogens
 Cell proliferation
 Chromosome
 Deoxyribonucleic acid formation
 Xenobiotics
 (human liver epithelial cell line and culture media for it)

IT Deoxyribonucleic acids
 RL: ADV (Adverse effect, including toxicity); BIOL (Biological study)
 (human liver epithelial cell line and culture media for it)

IT Amino acids, biological studies
 Blood serum
 Carbohydrates and Sugars, biological studies
 Coenzymes
 Fatty acids, biological studies
 Glycerides, biological studies
 Hormones
 Lipids, biological studies

Lipoproteins
 Lysophosphatidylcholines
 Mitogens
 Phosphatidylcholines, biological studies
 Phosphatidylethanolamines
 Phospholipids, biological studies
 Pituitary hormones
 Sphingomyelins
 Transferrins
 RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)
 (human liver epithelial cell line and culture media for it)

IT Albumins, biological studies
 RL: BSU (Biological study, unclassified); MFM (Metabolic formation); BIOL (Biological study); FORM (Formation, nonpreparative)
 (human liver epithelial cell line and culture media for it)

IT Neoplasm inhibitors
 Pharmaceuticals
 (screening; human liver epithelial cell line and culture media for it)

IT Keratins
 RL: BSU (Biological study, unclassified); MFM (Metabolic formation); BIOL (Biological study); FORM (Formation, nonpreparative)
 (18, human liver epithelial cell line and culture media for it)

IT Keratins
 RL: BSU (Biological study, unclassified); MFM (Metabolic formation); BIOL (Biological study); FORM (Formation, nonpreparative)
 (19, human liver epithelial cell line and culture media for it)

IT Animal cell line
 (HLC, human liver epithelial cell line and culture media for it)

IT Toxins
 RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)
 (cholera, human liver epithelial cell line and culture media for it)

IT Toxicity
 (cytotoxicity, human liver epithelial cell line and culture media for it)

IT Receptors
 RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)
 (epidermal growth factor/.alpha.-transforming growth factor, gene c-erbB, human liver epithelial cell line and culture media for it)

IT Liver
 (epithelium, human liver epithelial cell line and culture media for it)

IT Amino acids, biological studies
 RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)
 (essential, human liver epithelial cell line and culture media for it)

IT Liver
 (hepatocyte, human liver epithelial cell line and culture media for it)

IT Lipoproteins
 RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)
 (high-d., human liver epithelial cell line and culture media for it)

IT Antigens
 RL: BOC (Biological occurrence); BSU (Biological study, unclassified); BIOL (Biological study); OCCU (Occurrence)
 (large T, human liver epithelial cell line and culture media for it)

IT Lipoproteins
 RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)
 (low-d., human liver epithelial cell line and culture media for it)

IT Amino acids, biological studies
 RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)
 (nonessential, human liver epithelial cell line and culture media for it)

IT Virus, animal
 (simian 40, T-antigen; human liver epithelial cell line and culture media for it)

- IT Lipoproteins
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)
(very-low-d., human liver epithelial cell line and culture media for it)
- IT Vitamins
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)
(water-soluble, human liver epithelial cell line and culture media for it)
- IT Fetoproteins
RL: BSU (Biological study, unclassified); MFM (Metabolic formation); BIOL (Biological study); FORM (Formation, nonpreparative)
(.alpha.-, human liver epithelial cell line and culture media for it)
- IT Animal growth regulator receptors
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)
(.alpha.-transforming growth factor gene c-erbB, human liver epithelial cell line and culture media for it)
- IT Macroglobulins
RL: BSU (Biological study, unclassified); MFM (Metabolic formation); BIOL (Biological study); FORM (Formation, nonpreparative)
(.alpha.2-, human liver epithelial cell line and culture media for it)
- IT 50-23-7, Hydrocortisone 50-89-5, Thymidine, biological studies 50-99-7, Glucose, biological studies 56-40-6, Glycine, biological studies 56-41-7, Alanine, biological studies 56-45-1, Serine, biological studies 56-84-8, L-Aspartic acid, biological studies 56-85-9, Glutamine, biological studies 56-86-0, Glutamic acid, biological studies 56-87-1, L-Lysine, biological studies 56-89-3, Cystine, biological studies 57-10-3, Hexadecanoic acid, biological studies 57-11-4, Octadecanoic acid, biological studies 57-88-5, Cholesterol, biological studies 58-85-5 59-30-3, Folic acid, biological studies 59-43-8, Thiamin, biological studies 60-18-4, Tyrosine, biological studies 60-33-3, 9,12-Octadecadienoic acid (Z,Z)-, biological studies 61-90-5, Leucine, biological studies 63-68-3, Methionine, biological studies 63-91-2, Phenylalanine, biological studies 65-23-6, Pyridoxine 67-48-1, Choline chloride 68-19-9, Vitamin B12 68-94-0 70-26-8, Ornithine 70-47-3, Asparagine, biological studies 71-00-1, Histidine, biological studies 72-18-4, Valine, biological studies 72-19-5, Threonine, biological studies 73-22-3, Tryptophan, biological studies 73-32-5, Isoleucine, biological studies 79-83-4, Pantothenic acid 83-88-5, Riboflavin, biological studies 87-89-8, Inositol 98-92-0, Nicotinamide 110-60-1, Putrescine 112-80-1, 9-Octadecenoic acid (Z)-, biological studies 127-09-3, Sodium acetate 127-17-3, Pyruvic acid, biological studies 144-55-8, Sodium bicarbonate, biological studies 147-85-3, Proline, biological studies 302-79-4, Retinoic acid 1071-23-4, Phosphoethanolamine 1403-66-3, Gentamicin 6834-92-0 6893-02-3, Triiodothyronine 7440-23-5, Sodium, biological studies 7440-70-2, Calcium, biological studies 7447-40-7, Potassium chloride, biological studies 7487-88-9, Magnesium sulfate, biological studies 7558-79-4, Disodium phosphate 7647-14-5, Sodium chloride, biological studies 7720-78-7, Ferrous sulfate 7733-02-0, Zinc sulfate 7758-98-7, Copper sulfate, biological studies 7772-99-8, Tin chloride, biological studies 7773-01-5, Manganese chloride 7778-77-0, Monopotassium phosphate 7786-30-3, Magnesium chloride, biological studies 7786-81-4, Nickel sulfate 7803-55-6, Ammonium vanadate 9004-10-8, Insulin, biological studies 10043-52-4, Calcium chloride, biological studies 10102-18-8 12027-67-7, Ammonium molybdate 57828-26-9, Lipoic acid 62229-50-9, Epidermal growth factor
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)
(human liver epithelial cell line and culture media for it)
- IT 9041-92-3, .alpha.1-Antitrypsin
RL: BSU (Biological study, unclassified); MFM (Metabolic formation); BIOL (Biological study); FORM (Formation, nonpreparative)
(human liver epithelial cell line and culture media for it)
- IT 143-74-8, Phenol red 7365-45-9, HEPES
RL: BUU (Biological use, unclassified); BIOL (Biological study); USES

(Uses)

(human liver epithelial cell line and culture media for it)

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L77 ANSWER 1 OF 1 HCAPLUS COPYRIGHT 2004 ACS on STN
AN 1984:25868 HCAPLUS
DN 100:25868
ED Entered STN: 12 May 1984
TI Detection and inhibition of an organic interference in the indigo method for ozone
AU Chrostowski, Paul C.
CS Chem. Dep., Vassar Coll., Poughkeepsie, NY, 12601, USA
SO Analytical Letters (1983), 16(A15), 1177-86
CODEN: ANALBP; ISSN: 0003-2719
DT Journal
LA English
CC 61-3 (Water)
Section cross-reference(s): 79
AB Organic solutes often exhibit a delayed reaction in the indigo [68651-46-7] test for dissolved O3 which is similar to the reaction of O3 itself. This phenomenon has made timing critical in aqueous O3 measurements and has been observed in both laboratory samples containing high organic C:O3 ratios and in potable water containing low organic C:O3 ratios. Organic hydroperoxides, singlet O, and Fenton's reagent interfere, but triplet O, H2O2, and p-benzoquinone do not interfere. Addition of phenolic antioxidants inhibited the interference.
ST org interference ozone detn indigo
IT Named reagents and solutions
RL: OCCU (Occurrence)
(Fenton's, interference by, in indigo method for determination of ozone in water)
IT 10028-15-6, analysis
RL: ANT (Analyte); ANST (Analytical study)
(determination of, in water, interferences in indigo method for)
IT 75-91-2 80-15-9
RL: OCCU (Occurrence)
(interference by, in indigo method for determination of ozone in water)
IT 68651-46-7
RL: OCCU (Occurrence)
(ozone determination by, in water, interferences in)
IT 7732-18-5, analysis
RL: AMX (Analytical matrix); ANST (Analytical study)
(ozone determination in, interferences in indigo method for)
IT 7782-44-7, analysis
RL: ANST (Analytical study)
(singlet, interference by, in indigo method for determination of ozone in water)

=> d all 184 tot

L84 ANSWER 1 OF 1 HCAPLUS COPYRIGHT 2004 ACS on STN
AN 1995:224999 HCAPLUS
DN 122:7797
ED Entered STN: 04 Dec 1994
TI Longitudinal exposure of human T lymphocytes to weak oxidative stress suppresses transmembrane and nuclear signal transduction
AU Flescher, Eliezer; Ledbetter, Jeffrey A.; Schieven, Gary L.; Vela-Roch, Norma; Fossum, Donna; Dang, Howard; Ogawa, Noriyoshi; Talal, Norman
CS Clinical Immunology Section, Univ. Texas Health Science Center at San Antonio, San Antonio, TX, 78284, USA
SO Journal of Immunology (1994), 153(11), 4880-9
CODEN: JOIMA3; ISSN: 0022-1767
PB American Association of Immunologists
DT Journal
LA English
CC 15-8 (Immunochemistry)
AB Products of polyamine oxidase activity, at micromolar levels and during a period of 2 to 3 days, down-regulated IL-2 mRNA levels and activity in human lymphocytes. The authors studied whether this suppression was associated with signal transduction abnormalities. The authors found that polyamine oxidase activity suppresses both anti-CD3-induced IL-2 production and protein tyrosine phosphorylation. Polyamine oxidase activity also

caused a reduction in intracellular calcium mobilization after mitogenic stimulation. The most distal step of CD3-mediated signal transduction is dependent upon transcription factors that regulate a set of genes, including IL-2. It was found that polyamine oxidase-treated cells exhibited very low DNA binding activity of two such factors: NFAT and NF- κ B. On the other hand, AP-1 DNA binding activity was enhanced in polyamine oxidase-treated cells, suggesting a possible role for AP-1 in the human lymphocyte stress response. In accordance with the oxidation dependence of this suppressive mechanism, N-acetylcysteine (NAC; an antioxidant) significantly reversed the polyamine oxidase effects on lymphokine production and signal transduction. These results suggest that NAC contributes, under oxidizing conditions, to the preservation of immune function. Thus, the data suggest that chronic low-level oxidative stress, via suppression of mitogen-induced transmembrane signaling (protein-tyrosine phosphorylation and calcium mobilization), causes a decrease in the DNA binding activity of transcription factors that regulate the IL-2 gene. This results in decreased IL-2 production

- ST T cell oxidative stress transmembrane signal; nucleus signal transduction oxidative stress lymphocyte
- IT Ribonucleic acids, messenger
 RL: ADV (Adverse effect, including toxicity); BSU (Biological study, unclassified); MFM (Metabolic formation); BIOL (Biological study); FORM (Formation, nonpreparative)
 (interleukin 2-specifying; oxidative stress suppression of transmembrane and nuclear signal transduction in human T lymphocyte and)
- IT Cell membrane
 Cell nucleus
 Oxidative stress, biological
 Signal transduction, biological
 (oxidative stress suppression of transmembrane and nuclear signal transduction in human T lymphocyte)
- IT Mitogens
 (signaling; oxidative stress suppression of transmembrane and nuclear signal transduction in human T lymphocyte)
- IT Ribonucleic acid formation factors
 RL: BSU (Biological study, unclassified); MFM (Metabolic formation); BIOL (Biological study); FORM (Formation, nonpreparative)
 (AP-1 (activator protein 1), oxidative stress suppression of transmembrane and nuclear signal transduction in human T lymphocyte effect on)
- IT Ribonucleic acid formation factors
 RL: BSU (Biological study, unclassified); MFM (Metabolic formation); BIOL (Biological study); FORM (Formation, nonpreparative)
 (NF- κ B (nuclear factor κ B), oxidative stress suppression of transmembrane and nuclear signal transduction in human T lymphocyte effect on)
- IT Ribonucleic acid formation factors
 RL: BOC (Biological occurrence); BSU (Biological study, unclassified); BIOL (Biological study); OCCU (Occurrence)
 (NFAT-1 (nuclear factor, activated T-cell, 1), oxidative stress suppression of transmembrane and nuclear signal transduction in human T lymphocyte effect on)
- IT Lymphocyte
 (T-cell, oxidative stress suppression of transmembrane and nuclear signal transduction in human T lymphocyte)
- IT Lymphokines and Cytokines
 RL: ADV (Adverse effect, including toxicity); BSU (Biological study, unclassified); MFM (Metabolic formation); BIOL (Biological study); FORM (Formation, nonpreparative)
 (interleukin 2, mRNA-specifying; oxidative stress suppression of transmembrane and nuclear signal transduction in human T lymphocyte and)
- IT 124-20-9, Spermidine 7440-70-2, Calcium, biological studies
 7722-84-1, Hydrogen peroxide, biological studies 9001-66-5, Polyamine oxidase
 RL: ADV (Adverse effect, including toxicity); BIOL (Biological study)
 (in oxidative stress suppression of transmembrane and nuclear signal transduction in human T lymphocyte)
- IT 616-91-1, n-Acetylcysteine
 RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); BIOL (Biological study)
 (oxidative stress suppression of transmembrane and nuclear signal transduction in human T lymphocyte response to)
- IT 60-18-4D, Tyrosine, proteins containing
 RL: BSU (Biological study, unclassified); MFM (Metabolic formation); BIOL

(Biological study); FORM (Formation, nonpreparative)
(phosphorylation; in oxidative stress suppression of transmembrane and
nuclear signal transduction in human T lymphocyte)

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